Two awards were given out for research presented by members in training at the 2016 SBI/ACR Symposium. The awards include a $1000 check and high expectations for the future.

The Gerald D. Dodd, Jr, Award for Outstanding Research by Medical Student/Resident was given to Laura Semine-Misbach, MD, from Beth Israel Deaconess Medical Center, for her presentation of “Screening Breast Cancer Detection Rates Before and After Complete Conversion to Digital Breast Tomosynthesis.”

The Wendell Scott Award for Outstanding Research by a Fellow in Training was presented to Stacy Massey, MD, from LSU Health in Shreveport, for her research on “Screening Outcomes of Digital Breast Tomosynthesis vs Digital Mammography in an Underserved Population.”
A year has marched by since the USPSTF issued draft recommendations on screening mammography and 5 months have passed since they were finalized. The ACS released new recommendations 8 months ago. The ensuing and seemingly endless press coverage dwarfed the high octane engine-roaring, smoke-spewing, gravel-spitting, tire-burning, gas-guzzling car, motorcycle and dune buggy chases through the desert in *Mad Max: Fury Road*, winner of more Oscars (6) than any other film of 2015. The dust may finally be settling. The SBI, ACR, ACS, and USPSTF agree that annual screening beginning at 40 will save the most lives. Why don’t we all recommend that screening schedule? The primary reason for the disagreements relates to the variable value each group places on callbacks, anxiety, and other costs of the exam. The most inclusive strategy invites all women to participate annually at 40 and allows them the opportunity to exercise their values through choice.

What has the barrage meant for us? Questions regarding the effectiveness and value of screening mammography predate the randomized trials. Many different arguments have been raised against screening mammography. The ink on the signature of the Mammography Quality Standards Act (MQSA) was barely dry before the NIH held a consensus conference that failed to reach a consensus. If your world is anything like mine, you have had more email, calls, and curbside discussions with all types of providers, news media, and friends and family about when to start screening and how often to attend. These conversations can be frustrating and time-consuming. They can also be enlightening and educational while helping us appreciate differing opinions and hone our responses.

The questions have also come from our patients. Truly, they are the people caught in the middle of *Fury Road* between supporters and opponents of annual screening beginning at 40. Finding the time to discuss the nuances of the screening debate with inquisitive patients challenges the most efficient and capable radiologist in a busy breast imaging clinic. We may be tempted to dogma. Resist! These precious opportunities add value to the patient experience, gain trust, and put a face on radiology. If these reasons don’t convince us to embrace such discussions, consider where else our patients may turn for the information they seek. Our primary care colleagues are talented, intelligent, and dedicated. They, like us, care deeply for their patients and are constantly pressed for time. Some new patient visits last 15 minutes. How many seconds will be devoted to screening mammography?
A friend of mine recently visited a nurse practitioner for her annual checkup. She recounted the following conversation about screening:

*Nurse:* “How old are you?”

*Patient:* “47.”

*Nurse:* “Your last mammogram was…last year. You don’t need another one until next year.”

Succinct and efficient but hardly the balanced discussion that supporters of informed decision-making would endorse. No choice was offered. We should know the data and details better than anyone. It behooves our patients for us to embrace the discussion.

If you are looking for more information, the SBI provides many resources for patients, radiologists, sonographers, technologists, and nonradiologist providers. There is an entire section of the website devoted to screening. End the Confusion is an online campaign and repository of valuable references and answers to the most common questions. It even includes a short video, appropriate for patients, radiologists, and other providers, describing the main questions and benefits of screening.

Beginning with the third edition of the 2015 SBI newsletter we have published a series of articles written for radiologists to explain the scientific evidence supporting annual examinations beginning at 40 as well as the common critiques and how to understand and debate them. The articles remain in digital issues of the newsletter and are available online for members. This edition of the newsletter includes the next installment, covering the benefits of screening in mortality and years of life gained. Take a look. Empower yourself. Then embrace every opportunity to empower your patients, gain their trust, and become the face of radiology. When she asks “When should I get a mammogram?” pause, smile, and reply “That’s a great question.” And take a few minutes to answer. You’ll both be glad you did.

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President’s Column: Putting a Face on Breast Imaging

By Elizabeth A. Morris, MD, FACR, FSBI

I have been having conversations lately with nonradiologists about who should be responsible for breast patients. At a recent talk with a group of gynecologists, I was asked questions such as “Why do breast imagers notify us in order to approve additional imaging and biopsy?” and “Aren’t you doctors? Can’t you do that yourself?” Ouch. That stung. A surgeon from a different state recently asked me why she had to inform the patient of a biopsy result in her practice. Again, she asked me, “Aren’t breast imagers doctors and can’t they take responsibility for the patient?” Both of these interactions made me realize there is wide variation in practices and that breast imaging may have an image problem.

We may think that we are “hands-on,” but to some of our colleagues the perception is that we are shirking our responsibilities to the patient. To both the gynecologist and surgeon I responded, “Well of course we are doctors and of course we know how to take care of our breast patients.” But after saying that, I wondered if I was speaking for the majority of breast imagers, as similar talks with breast imagers around the country indicate that many feel hampered to act assertively. So there was a disconnect between colleagues wanting us to do more and an uncertainty on the part of breast imagers to do so. The disconnect made me realize that as a society we have a huge opportunity to discuss and support taking control of the patient process/experience as well as perhaps come to some agreement about what our responsibilities should be. As we head into more patient-centered care, this discussion is vitally important.

Most of us went into breast imaging because we enjoy the direct interaction with patients. We likely didn’t want to hide behind a PACS monitor. Many of us didn’t want to be a consult service—we wanted to be a frontline doctor who could talk and advise our own patients. Basically, we wanted to have a “face.” Having a “face” means taking on responsibility and owning the patient not only for the time they are in our care but also in the care of others. Blurred lines often exist between caretakers. Who should give the result of normal or abnormal imaging or after a biopsy? It varies in different practices. But I assert that the majority of times most caretakers would be happy for us to assume more responsibility and care for the patient. Being more proactive and assertive in our patient’s care would likely be appreciated by many, especially our patients.

With that in mind, the SBI will be starting a committee on this topic to address how we can help breast imagers be more proactive. Getting the word out about who we are and what we do is important. This year, the International Day of Radiology on November 8, 2016, is showcasing breast imaging, so the SBI, in cooperation with European Society of Breast Imaging, has an opportunity to show the public who we are and what we do. Drs. Dan Kopans, Bonnie Joe, Jennifer Harvey,
President’s Column, continued from previous page

Wendie Berg, Murray Rebner, Ed Sickles, Penny Butler, and Joy Burwell are contributing articles. Additionally, SBI member Dr. Nicole Saphier has tweeted about this issue and started a hashtag #RadsHaveAFace to show what breast imagers do. SBI is starting outreach initiatives to give back to local communities in the towns where we have events and is targeting patient groups, partly to give back but also to show our presence. These efforts matter. We know what we do and how we add value, and communicating that message to our patients is important. However, I would argue that the most important change is something each and every one of us can do on a daily basis in the clinic: being visible and having a face.

Massive changes in healthcare are coming. We are going to need a voice as well as a face to be at the table when decisions are being made about our specialty. Getting a seat at the table is easier if we are seen not as consultants but as breast doctors who care for our patients first and foremost. Having a voice allows us to develop guidelines and white papers about this topic. Jennifer Harvey has put a system in place for white-paper development through the Scientific Advisory Committee, so we just need a group of passionate reformers who can get the job done. One such individual I have spoken to who is passionate about change is Dr. Brian Englander of Pennsylvania Hospital. He would love to get rid of the mentality that we require permission from our referrers to do anything. We are the experts. We need to claim this terrain. Who better to advise and order appropriate tests for our patients, particularly in this era of risk assessment with advanced imaging? By talking to gynecologists, oncologists, surgeons, and primary care physicians, it appears that no one is terribly willing to fight us for this territory. They are confused about what screening or diagnostic exams to order and are more than willing for us to take this on. Confusion over breast density only adds to the willingness to have our input. Some breast imaging groups are starting their own high-risk clinics to provide risk assessments. I applaud this approach.

Now, I realize there are varied practices and insurance issues, but I believe that these can be overcome. The first step in effecting change is to reject the status quo. High-value care will be in our future and unnecessary testing will be discouraged. Breast imaging has led the way in self-assessment. We can lead the way in creating value for our health care systems and patients. We as breast imagers know the best tests and can recommend utilization management in appropriate ways. We can help reduce unnecessary use of resources and surgical interventions by recommending appropriate testing. We can use evidence-based guidelines to support decision-making. Who is best in these changing times to take care of the breast patient than breast imagers? Are we doctors? You bet we are!  

Elizabeth A. Morris, MD, FACR, FSBI
President, Society of Breast Imaging
The 2016 Society of Breast Imaging Symposium in Austin commenced with an all-star lineup of speakers presenting a riveting plenary session titled “Screening and the State of Breast Imaging.” The moderator, Daniel B. Kopans, MD, FACR, FSBI, of Harvard Medical School, opened the session with a fast-paced debunking of screening myths spanning approximately 40 years.

The first speaker of the morning, Robert A. Smith, PhD, FSBI, from the American Cancer Society (ACS), gave an update on breast cancer screening guidelines and analyzed the similarities and differences between the ACS and the US Preventive Services Task Force (USPSTF) recommendations. Dr. Smith explained the differing approaches to evidence of benefit. He reviewed the meta-analysis of all the screening trials showing varying degrees of mortality reduction. He reported that the ACS favors looking at the trials individually instead of a meta-analysis, given that a summary estimate is not the best measure of effectiveness. Dr. Smith went on to give a detailed comparison of the ACS and USPSTF recommendations regarding screening intervals, age to stop screening, and risks of screening. He concluded with concerns about a lack of preparedness of referring clinicians to discuss benefits and limitations associated with screening as well as weaker adherence to recommended screening intervals due to a paucity of reminder systems.

Jay A. Baker, MD, FACR, FSBI, of Duke University Medical Center, provided the tools for talking to patients and clinicians about screening. He addressed 3 popular issues that arise in answering questions regarding screening: age to start, annual versus biennial participation, and the health risks. He reviewed compelling and troubling data showing that one-third of all years of life lost to breast cancer are from women diagnosed in their 40s. He went on to demonstrate that even using CISNET 2015, a National Cancer Institute–sponsored statistical model favored by the USPSTF, 20% more deaths are averted and 33% more life-years are saved if screening starts at 40 instead of 50. Moreover, he discussed data showing an almost 40% improvement in mortality reduction, as well as a 38% improvement in life-years saved if the screening interval is annual rather than biennial. The third area that Dr. Baker covered were the so-called “harms” or risks of screening and things we can do to mitigate them in the face of the real benefits of screening. His conclusion: beginning at 40 saves the most lives. The SBI, ACR, ACS, and USPSTF all agree.

The next 2 speakers covered the topic of screening with new modalities. Margarita L. Zuley, MD, FACR, FSBI, Professor and Chief of Breast Imaging at University of Pittsburg Medical Center, discussed digital breast tomosynthesis as a newer screening tool. Wendie A. Berg, MD, PhD, FACR, FSBI, Professor of Radiology at University of Pittsburgh School of Medicine, followed with a presentation on breast
ultrasound as a screening modality. These dynamic speakers gave comprehensive updates on their respective topics.

Christiane K. Kuhl, MD, of the University Hospital Aachen, Germany, spoke about cutting-edge breast MRI technology and its clinical applications in screening. Dr. Kuhl explored the need to move beyond screening mammography, which she described as a modality biased to detect slowly growing cancers. Mammographic signs of cancer represent a process reflective of regressive changes; this leads to the concept of over-diagnosis if we think of it as extreme lead-time bias detecting nonprogressive disease, she said. Dr. Kuhl went on to say that not all ductal carcinoma in situ (DCIS) is biologically unimportant, just as not all invasive cancers are lethal, so the ideal screening modality will have the capability of early detection of potentially lethal in situ and invasive disease while avoiding the detection of nonprogressive disease. Dr. Kuhl then discussed ultrasound and tomosynthesis as current modalities used for screening, comparing each to breast MRI. She stated that contrast enhancement is a strong biomarker and therefore MRI is a modality biased toward the detection of biologically active disease. This is why aggressive triple-negative breast cancer is seen well on MRI. Dr. Kuhl cited the high cost of MRI as the main limitation to widespread screening, providing the impetus for her work to move away from multiparametric MRI and toward “abbreviated MRI.” She described this as an exam consisting of single pre- and postcontrast non–fat-suppressed 2D gradient-echo sequences, subtraction, and maximum-intensity projection images. Dr. Kuhl reported the diagnostic accuracy of abbreviated and standard MRI are similar and said the abbreviated MRI table time is 3 minutes and radiologist reading time is under one minute. She concluded by saying that vascular-based imaging will improve screening and pointed out that the aim is to maximize sensitivity for biologically important diseases with a lack of sensitivity for clinically irrelevant entities.

Dana H. Smetherman, MD, MPH, FACR, of Ochsner Health System in New Orleans, Louisiana, delivered the last talk of the morning on “The Economics of Breast Imaging.” This very informative discussion covered the current state of affairs of health economics, reimbursement, and future challenges. She began by sharing statistics showing the United States tops the chart of health care spending as a percentage of gross domestic product as well as per capita. Sadly, despite the astronomical amounts spent on health care, significant disparities in outcomes exist. Dr. Smetherman mapped out the complex landscape of how we currently get paid for our services, defined how Medicare payments are calculated, and described how Current Procedural Terminology codes are developed, valued, and updated. Dr. Smetherman forewarned the audience of the challenges to come, including the effects of bundling and the Patient Protection & Affordable Care Act, which will require Medicare to cover preventive services graded A or B by the USPSTF without additional costs to the patients. Currently, there is a 2-year hiatus on USPSTF 2015 screening recommendations, thanks to the Protecting Access to Lifesaving Screening Act. In closing, Dr. Smetherman urged us to be mindful of quality and cost as we face the challenges of transitioning to value-based reimbursement.
“Biology and Treatment” was the theme of the plenary session on Friday, April 8, at the 2016 Society of Breast Imaging Symposium. This was a special morning consisting of illuminating and inspiring lectures by our clinical colleagues. Breast imaging is a multidisciplinary field, made all the more rewarding by our interactions with the various clinical and basic science disciplines in breast cancer care.

Dr. Larry Norton, MD, Chair of Clinical Oncology and Deputy Physician-in-Chief for Breast Cancer Programs at Memorial Sloan Kettering Cancer Center in New York City, delivered the symposium keynote lecture on “Trends in Systemic Management of Breast Cancer.” There was much excitement around this topic, as reduction in breast cancer mortality is accomplished through both effective early detection (screening mammography) and successful eradication of systemic disease. The biology of metastases was discussed along with illustration of the complexity underlying molecular profiling. Dr. Norton asked how we may simplify the existing complexity in order for targeted therapy to be successful. He took us on an eye-opening tour of Gompertzian growth kinetics and taught us the clinical importance of dose-dense sequential therapy. Above and beyond cytotoxic chemotherapeutic agents, we learned of opportunities for alternative (and hopefully better) intervention: immunotherapy (possibly coupled with cryoablation), antimitastatic drugs and devices, and potential ways to manipulate tumor-microenvironment interactions (targeting leukocytes in addition to blood vessels).

Next, Dr. Henry Kuerer, MD, PhD, Professor of Surgery at MD Anderson Cancer Center in Houston and Executive Director of Breast Programs in the MD Anderson Cancer Network, delivered a futuristic and forward-thinking lecture entitled “Update on the Surgical Management of Breast Cancer: What Happens After Imaging?” As a breast surgeon, he works collaboratively in studying less invasive (and potentially nonsurgical) treatment methods for breast cancer. He focused on 3 areas: treatment vs active (imaging) surveillance for DCIS, targeted (vs total) axillary dissection for node-positive breast cancer, and eliminating surgery altogether for invasive breast cancer (after neoadjuvant chemotherapy). Dr. Kuerer particularly recognized the vital role that breast imaging plays in his clinical work, research, and care of the breast cancer patient.

On the basic science front, we learned from Jason Lewis, PhD, who is Director of the Center for Molecular Imaging and Nanotechnology at Memorial Sloan Kettering Cancer Center in New York City. He spoke on “Innovations in Breast Molecular Imaging and Targeted Therapy.” Dr. Lewis brought to us a fresh approach on novel and innovative methods in noninvasively understanding and depicting breast cancer biology. In particular, he focused on the development of new PET radiopharmaceuticals and the designing of novel PET agents for the diagnosis and treatment of cancer. The goal of translating his
results into clinical practice sparked curiosity and enthusiasm in all of us.

The morning was rounded out with a lecture by our own outstanding faculty, Dr. Debra Monticciolo, on the topic of “Preoperative Imaging and Localization,” including discussion of the use of radioactive seeds, e-magnetic reflector/IR detection, and magnetic lesion localization (injection of superparamagnetic iron oxide). This lecture complemented well the topics of our clinical colleagues.

The morning concluded with a bang: the Gold Medal, Honorary Fellow, and Special Recognition Awards Ceremony. The 2016 winners are Gold Medalist Carol Lee, MD, FACR, FSBI; Honorary Fellow Shawn Farley, MA; and Special Recognition Award Recipient R. Edward Hendrick, PhD, FACR, FSBI. Each has contributed much to the field of breast imaging and breast cancer care in his/her own unique and indelible fashion. A separate article in this newsletter edition will detail their remarkable achievements. We are truly appreciative of their work.

We were treated to multiple refresher courses in the afternoon, offering a variety of interesting and clinically useful topics exploring the basics in breast imaging (calcifications workup and breast biopsy), clinical implementation of new modalities and techniques (radioactive seeds), improving performance metrics and outcomes, and a review of recent essential literature. Attendees also had the opportunity to partake in the scientific session on “Breast Interventions and Value” and learn about original research ongoing around the country.
Saturday at the annual SBI meeting, attendees were presented with many high-quality presentations.

The President of the European Society of Breast Imaging, Gabor Forrai, MD, PhD, Head of Radiology, Duna Center Hospital and Clinics in Budapest, Hungary, gave an update on the state of screening in Europe. The presentation reviewed the history of screening programs in Europe, beginning with Dr. László Tabár’s 2-county pilot program in 1982. Dr. Forrai described considerable success enacting programs in many European countries since that time, with typical attendance to screening reported at 40% to 80% overall. These are organized population screening programs and the examinations are performed at public centers. Computer-aided detection is not routinely used, and double reading is performed mostly within each center. Digital vs film-screen use is currently at around 45% for each, with tomosynthesis use under 10% as of 2014. Opportunistic screening occurs mainly in private centers and outside the organized screening umbrella. Although ultrasound is offered in almost 70% of practices for diagnostic and screening examinations, automated whole-breast ultrasound is not in routine use. Dr. Forrai discussed the topic of “The debate of age to screen,” noting that most countries are covering the age range of 50-69, with a few outliers beginning coverage at 40. In most countries, nationalized health care covers most of screening costs; as of 2015 it is free in Sweden and Hungary. He also reviewed “The dense breast discussion,” saying that currently there is no European Union regulation about additional screening for dense breasts. The general consensus is that dense tissue causes a masking effect; however, breast density as a risk factor is part of an ongoing investigation. Access to high-risk breast MRI is less than 32% overall.

Breast cancer risk assessment has been a hot topic at many breast imaging meetings, and the symposium included it too. Dr. John Lewin, MD, FACR, FSBI, from the Women’s Imaging Center in Denver, Colorado, gave a timely lecture on screening women at high risk. Dr. Lewin discussed what constitutes high risk and the importance of understanding the models used to determine the lifetime risk of patients. High risk is defined as >20% lifetime chance of developing breast cancer. Depending on the risk model used or the information supplied, such as type of prior biopsy entered into the model, there can be vastly different results of potential risk. Determining the best screening strategies for these women can be overwhelming. MRI is widely used because many studies have demonstrated increased cancer detection compared with mammography and ultrasound. However, is it the best option? Dr. Lewin presented data on other modalities that are less widely utilized, including molecular breast imaging (MBI) and contrast-enhanced digital mammography/
tomosynthesis (CEDM/CET). In clinical literature to date, MBI has been shown to provide a substantial supplemental cancer yield. There have been several studies comparing CEDM to MRI, all showing benefits with CEDM. These modalities are not as widely used as MRI due to many reasons such as radiation dose, no billing code (CEDM), and the need to purchase dedicated equipment (MBI).

Digital breast tomosynthesis (DBT) and screening were the theme for the afternoon scientific session on Saturday. Several different studies were presented on the topic of DBT, ranging from 2D and 3D in an underserved population to trends in screening with DBT over 4 years. Drs. Christine Chen, Melissa Durand, Madhavi Raghu, and Liane Philpotts, from the Department of Radiology and Biomedical Imaging at Yale School of Medicine, New Haven, CT, demonstrated a decreasing trend in overall recall rates (after an increase in the second year) with DBT. Similar findings were observed with most individual radiologists reducing their recall rate with DBT but some remaining stable and one radiologist increasing their recall rate. Cancer detection reportedly remained stable over the 4-year time period, averaging around 5.5 per 1000, up from 4.4 pre-DBT. As many other studies have found, Chen et al reported a trend toward higher proportion of invasive cancer detection over time.

A study from the University of Michigan by Drs. Tania Rahman, Colleen Neal, Mitra Noroozian, Renee Pinsky, and Mark Helvie on “The risk of risk-based breast cancer screening and inability of family history and density to predict malignancy” was significant and timely in the era of personalized medicine. The study authors sought to demonstrate that population-based screening detects a large number of breast cancers that risk-based screening would miss. The hypothesis was proven as the study found that of the screen-detected cancers, 72% were in those with no family history, 75% no personal history, and 60% in nondense breasts. Combined, 28% were in those with no family or personal history and 30% were in women with no family history, personal history, or dense breasts, demonstrating that many of the cancers detected are in women with no risk factors. If risk-based screening were used exclusively, the result would be delayed diagnosis of breast cancer in many women.

The above is just a small sampling of the many timely and informative presentations the SBI members (myself included) had the opportunity to hear on Saturday.
The final morning of the 2016 meeting focused on Challenges in Breast Imaging Practice.

In “Imaging surveillance in women with a history of treated breast cancer,” Wei Tse Yang, MD, informed us that this population is increasing due to gains in life expectancy, population breast screening, and improved cancer treatment. Approximately 20% to 22% of new cancers are in women younger than 50. There is consensus supporting follow-up and screening mammography, although frequency and duration vary in guidelines and practice. Cited literature indicate that women with an initial diagnosis of DCIS and highest breast density (≥75%) have a 3-fold greater relative risk of developing any subsequent ipsilateral breast cancer when compared with women with the lowest (<25%) breast density. Dr. Yang reported that “regular history, physical exam, and mammography are recommended” for post breast-conserving therapy, as per ASCO 2012 guidelines. Literature published after the ACS 2007 guidelines support considering supplemental screening MRI in women with a personal history of breast cancer, but in her assessment, there is insufficient evidence for regular implementation.

Bonnie N. Joe, MD, PhD, FSBI, updated us on “Imaging and management of the axilla.” Sentinel lymph node (SLN) biopsy was introduced in the 1990s as a less invasive method to evaluate the axilla and forgo full axillary lymph node dissection (ALND) in cases where SLN biopsy is negative. The false-negative (FN) rate is approximately 10%. Our imaging, biopsies, and diagnostic input are critical as surgeons gather meticulous clinical details. Although limitations include a relatively short 5-year follow-up, the ACOSOG Z0011 trial provided encouraging data suggesting that carefully selected patients with positive SLN biopsy could do well enough without ALND. The strict selection criteria include lumpectomy, T1-T2 tumor, 0-2 positive nodes, whole-breast radiation therapy, and adjuvant therapy. Exclusion criteria include mastectomy, T3-T4 tumor, 3 or more positive nodes, partial-breast radiation therapy, and neoadjuvant chemotherapy. She also mentioned the ACOSOG Z1071 observational study to determine FN rate of SLN biopsy in the setting of neoadjuvant chemotherapy and a positive axillary lymph node on percutaneous biopsy. The 2013 published data showed 12.6% overall FN rate for SLN biopsy in this setting, which did not fall below the 10% threshold set by the original SLN data.

A fresh multimodality look at the BI-RADS 3 category by Peter R. Eby, MD, FSBI, in his talk “Is probably benign really just benign?” challenged any complacency we might experience on a day-to-day basis. Whether on mammography, ultrasound, or MRI, we may be tempted to place some
findings into the short-term imaging follow-up queue. He reminded us to always consider the clinical context. We know that. His summary slide “Probable conclusions” about BI-RADS 3 was fun: “Mammography: benign at least 98% of the time when used correctly. Ultrasound: might always be benign in women under 40 with palpable lumps when used correctly. MRI: might just be suspicious.”

In her talk “Audits, benchmarks, and performance: what you need to know,” Elizabeth Burnside, MD, MPH, FSBI, provided a clear and confident review of one of many commendable features of our field. Self-audit data demonstrate our transparency and commitment to best-practice guidelines, even if those data are vulnerable to misguided use elsewhere by others. The ACR accreditation process, MQSA, the ACR BI-RADS fifth edition section covering audits, Institute of Medicine reports, Physician Quality Reporting System, and—the most exciting new development—the National Mammography Database were deftly presented.

The always insightful and often entertaining “Taking cases with the experts” featured Ed Sickles quizzing Drs. Stamatia (Toula) Destounis, Jessica W.T. Leung, Linda Moy, and David Dershaw. The most special aspect of this interaction was the additional input by audience members, including Drs. Paula Gordon and Dan Kopans. We’re fortunate to bear witness to such high-level discussion and repartee among the authors of much of the original data that inform what and how we discuss our work today. Thank you to all for another delightful and educational meeting. See all y’all next year in Los Angeles!
The Society of Breast Imaging's most prestigious award, the Gold Medal, is awarded to a radiologist, medical physicist, or other distinguished scientist for exceptional and significant contributions to the subspecialty of breast imaging. Such service may consist of teaching, basic research, clinical investigations, clinical practice, or breast imaging statesmanship. Breast imaging statesmanship may include extraordinary service to the Society of Breast Imaging, the American College of Radiology, other medical organizations, or government agencies. The 2016 recipient is Carol Lee, MD, FACR, FSBI. Dr. Lee is an attending radiologist at Memorial Sloan-Kettering Cancer Center in New York. She received her MD from Yale University School of Medicine and did her residency in radiology at Yale-New Haven Hospital. Before joining Memorial in 2008, she was chief of breast imaging at Yale-New Haven Hospital for 10 years. Dr. Lee was the first chair of the Commission on Breast Imaging of the American College of Radiology. She has served as president of the SBI and as vice-president of the ACR. Dr. Lee is currently a member of the National Mammography Quality Assurance Advisory Committee to the FDA and is also chair of the.

On Friday, April 8, Dr. Elizabeth Morris served as moderator for the second day of the SBI/ACR Breast Imaging Symposium. On this special day, Dr. Morris had the distinct pleasure of recognizing 3 outstanding individuals for their extraordinary service in breast imaging.

The Society of Breast Imaging's most prestigious award, the Gold Medal, is awarded to a radiologist, medical physicist, or other distinguished scientist for exceptional and significant contributions to the subspecialty of breast imaging. Such service may consist of teaching, basic research, clinical investigations, clinical practice, or breast imaging statesmanship. Breast imaging statesmanship may include extraordinary service to the Society of Breast Imaging, the American College of Radiology, other medical organizations, or government agencies. The 2016 recipient is Carol Lee, MD, FACR, FSBI. Dr. Lee is an attending radiologist at Memorial Sloan-Kettering Cancer Center in New York. She received her MD from Yale University School of Medicine and did her residency in radiology at Yale-New Haven Hospital. Before joining Memorial in 2008, she was chief of breast imaging at Yale-New Haven Hospital for 10 years. Dr. Lee was the first chair of the Commission on Breast Imaging of the American College of Radiology. She has served as president of the SBI and as vice-president of the ACR. Dr. Lee is currently a member of the National Mammography Quality Assurance Advisory Committee to the FDA and is also chair of the.

On Friday, April 8, Dr. Elizabeth Morris served as moderator for the second day of the SBI/ACR Breast Imaging Symposium. On this special day, Dr. Morris had the distinct pleasure of recognizing 3 outstanding individuals for their extraordinary service in breast imaging.

The Society of Breast Imaging's most prestigious award, the Gold Medal, is awarded to a radiologist, medical physicist, or other distinguished scientist for exceptional and significant contributions to the subspecialty of breast imaging. Such service may consist of teaching, basic research, clinical investigations, clinical practice, or breast imaging statesmanship. Breast imaging statesmanship may include extraordinary service to the Society of Breast Imaging, the American College of Radiology, other medical organizations, or government agencies. The 2016 recipient is Carol Lee, MD, FACR, FSBI. Dr. Lee is an attending radiologist at Memorial Sloan-Kettering Cancer Center in New York. She received her MD from Yale University School of Medicine and did her residency in radiology at Yale-New Haven Hospital. Before joining Memorial in 2008, she was chief of breast imaging at Yale-New Haven Hospital for 10 years. Dr. Lee was the first chair of the Commission on Breast Imaging of the American College of Radiology. She has served as president of the SBI and as vice-president of the ACR. Dr. Lee is currently a member of the National Mammography Quality Assurance Advisory Committee to the FDA and is also chair of the.

Dr. Morris presents the Honorary Fellow Award to Mr. Farley.
Highlights of the 2016 SBI/ACR Breast Imaging Symposium: Awards, continued from previous page

BI-RADS committee of the ACR. She has been specializing in breast imaging for more than 25 years and has particular interest in magnetic resonance imaging of the breast.

Honorary Fellow status is given to an individual who has made an outstanding contribution to the subspecialty of breast imaging. Such service may consist of teaching, basic research, clinical investigations, clinical practice, or breast imaging statesmanship. Breast imaging statesmanship may include extraordinary service to the SBI, the ACR, other medical organizations, or government agencies. Honorary Fellows are exempt from all dues and assessments and have all the rights of active Fellows except the right to hold office and vote. This year, the SBI granted Shawn Farley, MA, with an honorary fellowship. Shawn, who is the current Director of Public Affairs for the American College of Radiology, was a former television anchor and reporter. Shawn directs ACR daily communications, issues management, and coalition engagement. He is also a primary media relations and public relations coordinator for the Mammography Saves Lives and Image Gently campaigns. During his 10 years with the College, PR Week magazine has cited ACR as a “Key Association” in Washington and featured Shawn in its “DC Influencer” column. He has coauthored 6 articles published in major radiology journals regarding health care social marketing. Shawn earned a Master of Arts degree in government from Johns Hopkins University and Bachelor of Science degree in communications from Middle Tennessee State University.

The Special Recognition Award is given to individuals for their extraordinary contribution to breast imaging. This year, the Awards Committee selected R. Edward Hendrick, PhD, FACR, FSBI, for this special award. Ed Hendrick is an American Board of Radiology–certified diagnostic medical physicist who has dedicated his career to improving the quality of breast imaging. He served as the physics chair in establishing the ACR’s Mammography Accreditation, MRI Accreditation, Stereotactic Breast Biopsy Accreditation, and Breast MRI Accreditation programs. He helped define ACR and FDA federal standards for mammography equipment and quality control and was lead author on all 4 editions of the ACR’s Mammography Quality Control Manuals and the Stereotactic Breast Biopsy Quality Control Manual. He is a coauthor of the recently released Digital Mammography Quality Control Manual and the latest edition of ACR’s MRI Quality Control Manual. He was a charter member of the FDA’s National Mammography Quality Assurance Advisory Committee and co-chair of the Agency for Health Care Policy’s Panel on Quality Determinants of
Mammography. He served as co–principal investigator of the ACRIN DMIST screening trial of digital mammography. He has served as treasurer and president of the Society of Magnetic Resonance Imaging and is a fellow of ACR, SBI, American Association of Physicists in Medicine, Society of Magnetic Resonance Imaging, and the International Society of Magnetic Resonance in Medicine. He was lead author of the first peer-reviewed publication showing a statistically significant benefit of mammography screening in women 40 to 49 and has contributed significantly behind the scenes to preserve the right of US women to have access to screening mammography.

Fellows

The Society of Breast Imaging welcomed five new Fellows on April 7 at the 2016 Symposium! The new Fellows are pictured here with SBI President Elizabeth A. Morris, MD, FACR, FSBI, and Director and Chair of the Fellows, Daniel Kopans, MD, FACR, FSBI. Read more about the new Fellows: [http://bit.ly/1Z2S7GB](http://bit.ly/1Z2S7GB).
Different types of scientific studies performed over many years have consistently shown that screening mammography results in fewer deaths from breast cancer. Familiarity with the different study designs is useful in understanding the strength and types of evidence supporting screening mammography.

**Randomized Control Trials**

The strongest evidence that mammography results in fewer deaths from breast cancer (also called reduction in breast cancer mortality) is provided by randomized controlled trials (RCTs). In screening RCTs, a large group of women is randomly divided or sorted into 2 groups: an experimental group invited to participate in screening mammography and a control group not invited for screening. The 2 groups are followed over a long period of time to determine the number of women in each group who die each year from breast cancer. The process of randomization must be blinded (experimenters do not control which women are assigned to each group) so that similar types of women end up in each group by random chance. If the trial is done appropriately, the difference in the number of breast cancer deaths in the experimental group (invited to screening) compared with the control group (not invited to screening) is due to the use of screening mammography.

Many RCTs have been performed and published (New York HIP, Malmö I and II, Swedish Two County [Kopparberg and Östergötland], Canadian NBSS 1 and 2, Stockholm, Göteborg, UK Age trial, and Edinburgh). The information gained from each of these separate trials can be considered together in what is called a meta-analysis. **Over many years, multiple meta-analyses of the RCTs**
have shown that deaths from breast cancer are decreased by 20% to 22% in the group of women invited to receive screening mammography compared with the control group (1-5).

Importantly, the amount of benefit shown in RCTs underestimates the reduction in breast cancer deaths achieved in regular clinical practice. This is due to the requirements for RCTs. Once a woman is assigned to one group or the other, she is counted with that group regardless. This is to avoid possible “self-selection biases” from confounding the results. Consequently, if a woman assigned to the screening arm chooses to not undergo screening (called noncompliance) and she dies from breast cancer, she is still counted with the screened group. Similarly, if a woman assigned to the control arm has her life saved by a mammogram that she has outside the RCT, she is still counted with the unscreened controls (called contamination). In addition, the RCTs had long screening intervals and few screening rounds, which will underestimate the actual benefits. Most trials also had relatively short follow-up times and low recall rates. These are well-known factors that affect the calculated benefit of RCTs and underestimate the actual benefits of screening.

**Service Screening Studies**

Service screening studies provide a better measure of the actual benefit of screening mammography when used in regular clinical practice. They use information from large-scale, centrally organized mammography screening programs, such as in Europe, Canada, and Australia. These programs have standardized procedures for screening, record keeping, and outcome monitoring. The main difference in service screening studies from RCTs is that they show the reduction in breast cancer deaths in women who actually undergo screening rather than in those invited to screening. European service screening data have shown a 38% reduction in breast cancer mortality in screened women compared with unscreened women (6). Likewise, Canadian service screening data have shown a 40% reduction in breast cancer mortality through participation in mammography screening programs (7).

**Case-Control Studies**

Another type of observational study that shows the benefits of screening mammography is a case-control study. These studies compare whether and how often screening mammography was done in a group of women who died from breast cancer (cases) compared with similar women who are still alive (matched controls). A review of several European case-control studies showed a 48% decrease in breast cancer mortality for screened vs unscreened women (6). Likewise, data from the Western Australia population-based screening program showed a 49% reduction in breast cancer mortality for women who were screened (8).

**Trend Studies and Computer Models**

Because the United States does not have a centrally organized screening program or a national tumor registry, US service screening studies cannot be performed. However, the National Cancer Institute (NCI) does track data regarding age-adjusted death rates from breast cancer in some US
Evidence that Screening Mammography Reduces Deaths from Breast Cancer, continued from previous page

regions through the Surveillance, Epidemiology, and End Results (SEER) program (9). Of particular note, the SEER information does not include whether women did or did not have screening mammography, so it cannot be used to directly compare breast cancer mortality in screened to unscreened women. Some investigators have used the difference between SEER breast cancer deaths and expected rates or “trends” for breast cancer deaths to conclude no benefit of screening mammography. However, these conclusions are incorrect because of use of inaccurate information, including expected breast cancer incidence rates (10).

Computer models use information from trials and clinical practice to calculate outcomes that could not be directly measured in these settings. The Breast Cancer Working Group of the Cancer Intervention and Surveillance Modeling Network (CISNET), a consortium of NCI-sponsored investigators, has used models to look at several aspects of breast cancer screening. CISNET models have shown that annual screening mammography performed for women ages 40 to 84 years results in a mortality reduction of 39.6% and 189 life-years gained per 1000 women screened (11).

CISNET has also looked at the contributions of mammography and therapy for decreasing breast cancer deaths. Across multiple models they found that screening mammography accounted for 46% (28%-74%) of the total reduction in death rates from breast cancer (12, 13).

Failure Analysis

One more way to analyze the impact of screening is through “failure analysis.” At the 2 major teaching hospitals at Harvard Medical School, investigators looked at the screening history of women who died from breast cancer and found that more than 70% of the women who died (failure) from breast cancer were among the 20% of women who were not participating in screening (14).

In summary, RCTs have proved that earlier detection saves lives (reduces mortality). The other studies have shown that the benefit holds when screening becomes available in general populations outside rigorous trials and that the benefit is greater than seen in the RCTs because the results are not diluted by contamination or noncompliance. The observational studies and especially the failure analysis show that screening is a major factor in the decline in breast cancer deaths since most women in these latter studies had access to new therapies, yet the greatest decline in deaths was among the screened women.

Summary of Evidence

<table>
<thead>
<tr>
<th>Type of Study Design</th>
<th>Reduction in Breast Cancer Mortality from Screening Mammography</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Randomized Control Trials</td>
<td>20%-22%</td>
<td>(1-5)</td>
</tr>
<tr>
<td>Service Screening Studies</td>
<td>38%-40%</td>
<td>(6, 7)</td>
</tr>
<tr>
<td>Case-Control Studies</td>
<td>48%-49%</td>
<td>(6, 8)</td>
</tr>
<tr>
<td>CISNET Models*</td>
<td>40%</td>
<td>(11)</td>
</tr>
</tbody>
</table>

*For annual screening of women 40 to 84 years old
Evidence that Screening Mammography Reduces Deaths from Breast Cancer, continued from previous page

REFERENCES


The Ellen Shaw de Paredes Resident and Fellow Education Fund (succinctly called “Ellen’s Fund”) was recently created and supported by the Society of Breast Imaging to foster and recognize breast imaging research by radiology residents and fellows. Original scientific abstracts by residents and fellows as first authors at the annual SBI/ACR Breast Imaging Symposium will be considered for the Paredes Scholar Award. These awards serve as “grassroots” fund support to young investigators in our field of breast imaging. We are strongly encouraging fellows and members of SBI to support Ellen’s Fund as a commitment to the future growth of our society and as a gateway to further improve patient care. Tax-deductible donations can be made online at https://www.sbi-online.org/EllensFund.aspx. Thank you so much in advance for your generosity.
With the current controversies surrounding new recommendations for screening mammography confusing both women and physicians, it is tempting to wonder why this struggle to determine appropriate schedules has become so divided. The controversies are not new and have been argued for more than half a century. It may be worthwhile to take a short historical perspective in order to place the current dialogue in context. Of paramount importance are the medical indications for screening, but the purpose of this article, as invited by the editor, is to analyze the information from a medical-legal optic.

Beginning with the 1960s Health Insurance Plan study in New York, where about 62,000 women were randomized to standard care vs screening for breast cancer with physical examination and mammography, the medical community and public were alerted to the potential impact on lowering mortality rates for women who were screened (1). Of note is that a large percentage of these cancers were identified on physical exam rather than by the early industrial film radiographic studies of the breast. With the advent of xeromammography and first-generation dedicated film-screen capabilities, better detection of preclinical breast cancer was available. In the 1970s, the American Cancer Society and National Cancer Institute (NCI) sponsored the Breast Cancer Detection Demonstration Project (2). Although not a randomized study, it afforded the ability to recognize that improved mammography could identify the majority of cancers diagnosed in the study and provided a basis for detection in nearly half the patients who had no clinical findings.

The last quarter of the century produced screening studies from multiple countries with varying results. Only the Canadian Breast Screening trial showed inferior results in the screening cohorts for reasons that have been adequately addressed elsewhere (3,4). Both meta-analyses and long-term results to 29 years have demonstrated lowered mortality rates for screening mammography using older techniques (5).

The evolution of the controversies began to be more focused in the 1990s with an NCI consensus conference showing hesitancy in endorsing yearly recommendations for women beginning at age 40 years. Some specialty societies, such as the American College of Radiology, had converged on this recommendation while others, such as the American Congress of Obstetrics and Gynecology, the American College of Physicians, and the American Academy of Family Physicians, did not agree. The current US Preventive Service Task Force, through deliberations that have been substantively criticized, does not endorse annual screening mammography from age 40 years. The American Cancer Society has recently retreated as well from annual recommendations for 40- to 44-year-old...
Recommended Screening Guidelines and Medical Legal Issues, continued from previous page

women. There is no new evidence to support these changing social policy decisions but rather re-examination of prior evidence (at a curious time when digital breast tomosynthesis is showing significant improvements) supporting arguments regarding both perceived benefits and harms. A further analysis is beyond the context of this discussion.

The legal concept of “standard of care” is—unlike incorrect commentary from other physicians in the published radiology literature—an objective standard, often defined by courts as what a reasonable and prudent physician would do under similar circumstances. Both from a jurisprudential perspective as well as legal standards regarding admissibility of evidence, there is an accepted doctrine called “the alternative school of thought.” This important concept provides a basis for physicians choosing practice patterns that may not be supported by a given set of guidelines but which are sufficiently supported by peer-reviewed literature. Thus, substituting thermography for mammography, for example, would not meet this test.

However, given the variable results and interpretations from the studies described above, reasonable people may disagree regarding the advisability of yearly mammography beginning at age 40 years. Based on the 2 legal principles introduced herein, an alternative approach that is supported by learned societies, while perhaps not optimal from other perspectives, may support the principle of reasonableness.

Analyses showing a large number of cancers may be delayed in diagnosis when, for example, beginning screening mammography at age 50 years or risk-based predicates (themselves subject to debate) may favor a more aggressive approach to screening, but do not, per se, establish a single standard of care.

An adverse outcome usually triggers a lawsuit for malpractice, which is almost always evaluated with respect to the law of negligence. While negligence has a pejorative connotation, it is a specific tort, or field of civil law, governed by 4 elements, namely, duty, breach of duty, causation, and damages. If an aggrieved plaintiff advances the argument that the duty of her treating physician required referral for annual mammography when in fact she was not recommended for this protocol,
defense attorneys and witnesses would attempt to defeat the notion that such a schedule represents a universally accepted standard of care, buttressed by different schedules in a number of countries.

In one sense, a risk-management argument can be made to comply with annual mammography because such conduct obviates the challenge noted above. However, where there is significant difference of learned opinion, that argument does not necessarily prevail in court because of the alternative school of thought doctrine.

The division of approach does not mean that radiologists should not recommend annual studies, as is the current ACR/SBI approach. It also does not mean that radiologists or other physicians cannot depart from ACR recommendations and follow the sage, if controversial, advice of the American Cancer Society. Rather, in a legal context, adherence to one approach or another, supported by evidence and expert consensus, provides a basis for reasonable care.

REFERENCES

Breast cancer is one of the most common and oldest recognized cancers among women. Ancient Egyptians were the first to report the disease more than 3500 years ago. The Edwin Smith surgical papyrus contains descriptions of the earliest known cases of tumors of the breast that were treated by cauterization with a tool called the “fire drill.” This writing says about breast disease, “There is no treatment.”

Breast cancer is no longer considered an untreatable disease as the world has witnessed advances in early detection and management strategies, yet the morbidity and mortality rates of breast cancer have been steadily increasing in many countries. According to the National Cancer Institute Cairo Registry, breast cancer represents 35.1% of female cancers in Egypt, characteristically with a younger age distribution and extensive disease at presentation (1,2). The burden of high mortality rates from breast cancer in Egypt is equally attributed to the lack of awareness about the importance of early detection and the shortage of high-quality diagnostic services.

With a strong conviction, the Egyptian Ministry of Health launched the National Screening Program in October 2007. The program offers free screening and treatment facilities to Egyptian women above the age of 45 years. Over a period of 6 years, the program succeeded in screening 117,000 women. In addition, the inauguration of the first specialized multidisciplinary diagnostic and therapeutic breast cancer institute, Baheya Charity Hospital, was announced in February 2015. In the short period since its opening, Baheya Hospital has endeavored to provide free, distinctive, and flawless screening services to 18,000 women above the age of 45 years along with high-quality diagnostic examinations for symptomatic patients.

According to previous studies, mammography reduces morbidity...
and mortality from breast cancer and is inexpensive and well tolerated, yet we have to admit that it still has many limitations and therefore must be coupled with complementary modalities, especially in patients with dense breast parenchyma. This has motivated revolutionary changes in the field of breast imaging, knowing that the best results are obtained from modalities that can provide combined morphology and functional information. One of the newest technologies introduced to the field of breast imaging is contrast-enhanced spectral mammography (CESM). CESM combines useful features of digital mammography, namely the ability to provide very high-resolution morphology together with the improved sensitivity and demonstration of extent of disease depicted by MRI through physiologic imaging. From a practical point of view, oncologists and surgeons find CESM easier to understand than MRI.

Before implementing CESM in Baheya Hospital, we had to make sure it would add value to existing modalities. CESM definitely has an impact on the workflow in breast centers, raising concerns about cost-effectiveness. No doubt, in today’s cost-conscious environment the conflict between high-quality diagnostic modalities and economic efficiency has to be resolved. Studies have proven that both the sensitivity and specificity of CESM are higher than mammography, yet this is at the expense of increased time of examination, increased cost with higher radiation dose, and more contrast hazards. At the same time, when CESM is compared with MRI, the balance shifts in favor of CESM with comparable sensitivity and specificity, reduced time of examination, and fewer contraindications.

CESM is used in diagnostic units as an easier and much cheaper alternative to MRI and to verify screening identified abnormalities. Prospective studies are necessary to validate whether CESM has the potential to be used as a primary screening modality in some specific situations. Personal variations of screened women have pushed breast cancer screening programs to adopt an individualized approach. An example to this is incorporating MRI and ultrasound as validated complementary screening modalities for high-risk patients and patients with dense breast parenchyma, respectively. If CESM is to replace MRI in this context, it will have the advantage of being a one-stop screening modality with an enhanced diagnostic performance. Achieving this, we can both reduce patient anxiety and ensure high patient compliance by reducing the number of steps patients take from detection to diagnosis.

Breast imaging modalities will continue to evolve. Combining both ease and accuracy, CESM is validated as a useful imaging modality that should be incorporated into routine breast imaging practices.

REFERENCES
What I’ve Learned:
Robert A. Smith, PhD, FSBI

By Jiyon Lee, MD

Let’s start with the ending. Robert A. Smith, PhD, remarks on his life and work: “How can you be bored?” It’s not easy to see his eyes behind the glasses but his soft voice and quiet grin draw you in. Indeed.

From the beginning, Bob’s landscape was constantly changing. Born in 1951 (Libra) in a naval hospital in Oakland, California, to his mother and naval aviator father, he lived in 8 cities, with his high school years split between Honolulu, Dallas, and Atlanta. Among the 98% from his high school who attended college, Bob started at the University of Georgia (UGA), the only school to which he applied, without specific plans, and—not unlike most of his contemporaries—during the Vietnam War.

So how was college? How did you choose your major and where were you headed? Was there a pivotal moment in your career path?

Pivotal is an abrupt term. Let’s say that I had a “less than stellar” freshman year. I had to switch schools, not sure where I was headed but knew it wasn’t to become a doctor or lawyer.

Did you say “doctor or lawyer?” I thought only Asian parents say that!

Traditional careers—respect, autonomy, and good pay. [He grins.] I worked as an EMT for 2 years at Grady Memorial Hospital. For the pay and for the experience. Eye opening to work in that rough environment. We didn’t have much then. Backboard, splints, no stethoscope, only first aid kits. Four wheels to move people in need.

Did you deliver babies???

Yes, I delivered and nearly delivered babies during that time. I learned this lesson: don’t try doing that in a moving vehicle. After those 2 years I returned to UGA. And made the Dean’s List every semester. [Big grin. Well, bigger grin than usual.] I started graduate school. Sociology. I would say that I have a situational curiosity. [Head tilt.] I got a master’s degree at UGA and then a
PhD at Stonybrook, also in sociology. Oh, and another master’s. In sociology. When I received my PhD, they said, “Here’s another master’s.”

Aaah. That was easy. [Grin here.] Your thesis? Your area of study? I can imagine why sociology for you but lead us along the journey.

I grew disenchanted with my original dissertation. My work was initially on the quantitative track, studying different labor markets, assets, and security. Cyclical instability, social and biological causes leading to epidemiological consequences such as adverse outcomes. But I realized that I was less interested in labor markets and more curious about the epidemiological implications, for example higher rates of occupationally related disease, differential health risks associated with social class, and greater risks of adverse outcomes associated with various social factors. Projects in the early 1980s included malnutrition related to introduction of infant formula in low-resource countries leading to the Nestle’s boycott and a study of Vietnam veterans exposed to herbicides (Agent Orange) in Vietnam.

Your final dissertation? Can we read it? And where to next? Did you sense that you were now on the right path for you?

My final 1983 dissertation was titled “Politics and Science in Public Health Disputes.” It can be found at the University of Michigan library. Yes. I did. And with good timing. Next at Boston University School of Public Health I studied alcohol-related fatal car crashes using data from the Department of Transportation. At the CDC, I helped launch the breast and cervical cancer screening program, new of its kind. In 1992 when I was recruited to the ACS as Senior Director of Detection and Treatment, that’s when I helped write the MQSA legislation, began to lead cancer screening guideline development, and with colleagues at CDC launched the National Colorectal Cancer Roundtable, which now links over 70 organizations.

Thank you. Your talent and timing positioned you to do much at key organizations. Would you change anything if you could press a Redo button? And what are your primary research interests now?

No, I would not change a thing. It’s been wonderful. Cancer epidemiology, evaluation of cancer prevention and early detection programs, quality assurance in the delivery of health services, and cancer rehabilitation and survivorship. I serve on many international and national working committees.

Do you exercise? Do you ever feel blue? What are your favorites? For music, food, fun, family time?

Played high-school football, ran track (400 m sprinter), and surfed. Don’t have much time for exercise. But after my new right knee (2014), I am game for trying new things. I never feel blue but I do love the Blues. Favorite cuisine? Have to say classic Southern cuisine—meat and 3 sides. For me that means fried chicken (the meat and the batter matter), 3 vegetables (usually overcooked), with lightly sweetened iced tea with lots of lemon. Don’t need dessert but if there is, love...
blueberry pie made by my wife, Irina. My kids (Joe, age 26; Daria, age 22) are nearby and visit often.

You are all blessed. And what would you say are your guiding principles?

Not lose sight of the broader challenges of public health during your day-to-day work. [These] are shaped by broader environment and healthcare systems that are not organized and not supportive of health. There is increased efficacy and effectiveness if system is organized. Need data to guide us, to determine if practice is supportable. MQSA is an example, but even more than that. In Europe, the general practitioner is not responsible for shared decision-making. The national breast cancer screening program directs and is responsible for implementation of screening. The system is reactive and can identify areas that need correction. We need to revisit MQSA—MQSA Round 2, if you will. Requirements of high-quality mammography and optimizing delivery of breast imaging. The latter includes required feedback on the [professional performance of] breast imagers and [improvement on professional performance by] the required training [or retraining] of breast imagers.

Any parting words for us? Final lesson?

I have made lifelong friends through my work with and through the ACS. The trust and confidence have grown, the mutual dependence, the camaraderie. When you are reaching the end of your career, that is what you might lose, the connection.

But the career ending is not the REAL ending. Is it? Not with someone like Robert Smith, PhD, FSBI, with his situational curiosity and deep fascination with how to transform epidemiological observations into actionable guidance. How can anyone be bored? With respect and admiration, we are glad he is not.

Dr. Robert A. Smith is Adjunct Professor of Epidemiology at the Rollins School of Public Health, Emory University School of Medicine, and Vice President, Cancer Screening at the National Office of the American Cancer Society (ACS) in Atlanta, Georgia. At the ACS he leads the development of cancer screening guidelines and special projects focused on cancer prevention and control and cancer rehabilitation. He is the author of over 300 peer-reviewed scientific articles, reports, and book chapters and a frequent lecturer on cancer screening issues. In 2012 he received the American Society of Breast Diseases Global Pathfinder Award “for visionary leadership in the fight against breast cancer.” Dr. Smith is an Honorary Fellow of the Society of Breast Imaging. He lives in Atlanta with his wife, Irina.
A 72-year-old woman with 40-year-old bilateral silicone breast implants presented with bilateral breast firmness and breast urticaria. She was concerned that her left implant had ruptured after noticing that her left breast appeared smaller than the right.

Findings:

Initial noncontrast MRI was performed to evaluate implant integrity. This examination revealed a 5-cm intracapsular round mass with irregular margins located in the lower outer quadrant of the right breast at the 8 o’clock position. The mass had a heterogeneous short tau inversion recovery (STIR) signal intensity (Figure 1). In addition, the right implant was ruptured and displaced superomedially without disruption of the fibrous capsule (Figure 2a). No abnormal right axillary lymph nodes were present. Intracapsular rupture of the left implant was additionally noted with both linguine and keyhole signs (Figure 2b).

Figure 1. Noncontrast MRI axial (A) and sagittal (B) STIR sequences of the right breast demonstrate a round intracapsular mass with irregular margins and mixed signal intensity at the 8 o’clock position (circles). The mass displaces the silicone implant superomedially.

Figure 2. Noncontrast MRI axial STIR sequences of the right (A) and left (B) breasts demonstrating both the linguine sign (blue arrows) and keyhole sign (red arrow), indicating intracapsular rupture.
A contrast-enhanced MRI subsequently revealed moderate central enhancement of the right 8 o’clock mass with plateau and washout kinetics (Figure 3 a, b).

Targeted ultrasound correlation detected a heterogeneous mass with scattered high-level internal echogenic foci at the 8 o’clock position (Figure 4). Little vascularity was present; however, the thick and partially calcified capsule surrounding the mass impeded accurate sonographic penetration of the interior. It was given a BI-RADS 4 assessment.

A second mass, distant from the 8 o’clock mass, was identified during the ultrasound examination. This mass, with irregular margins and increased internal flow by color Doppler and located at 2:30, was hypoechoic and adherent to the external margin of the implant capsule (Figure 5). It was given a BI-RADS 5 assessment. In addition, a silicone-containing axillary lymph node with a “snowstorm appearance” was identified by sonography. No additional abnormal lymph nodes were present. The 2:30 mass was retrospectively correlated to the prior MRI, which demonstrated a lobular mass with irregular margins and heterogeneous enhancement with washout and plateau kinetics (Figure 3 c, d).

Ultrasound-guided core biopsy of the mass at 2:30 adjacent to the fibrous implant capsule demonstrated a moderately differentiated invasive ductal adenocarcinoma with focal infiltration through the capsular wall. Ultrasound-guided core biopsy of the mass at 8 o’clock recovered proteinaceous material with early organization characterized by the presence of few fibroblasts and lacy fibrin deposition. No invasive carcinoma was present. Surgical pathology following total
mastectomy confirmed organizing hematoma within the fibrous implant capsule at 8 o’clock. Two of 3 axillary lymph nodes were positive for metastatic carcinoma.

Discussion:

This case illustrates an intracapsular organizing hematoma mimicking a malignant breast mass invading the fibrous capsule of a ruptured implant. Hematomas are not uncommon in the postoperative period following breast augmentation or reconstruction. However, delayed presentations are rare (1,2). In our case, the hematoma developed approximately 40 years after implantation. Although most reported cases do not have an inciting event, many different theories have been proposed, including trauma, capsular contracture, microfracture, implant rupture, recurrent cancer, lymphoma, infection, and local inflammatory reactions with increased capillary permeability (2,3).

As emphasized by this case, there are multiple challenges in evaluating patients with calcified implants. Ultrasound is often used as a first step in evaluation of symptomatic patients with breast augmentation. However, our ultrasound study was compromised by the partially calcified fibrous capsule impeding

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**Figure 4:** Doppler ultrasound of the right breast at the 8 o’clock position reveals a poorly defined hypoechoic and intracapsular mass. Pursuant to the MRI findings, internal vascularity was expected but could not be confirmed.

**Figure 5:** Doppler ultrasound of the right breast at the 2:30 position shows an irregular hypoechoic mass with angular margins corresponding to the MRI-detected mass.
transmission of the sound wave. Reverberation artifact, attenuation artifact, and implant capsule calcification are known barriers in ultrasound evaluation of breast implants (4,5). In such instances MRI is the imaging modality of choice.

This case also highlights an example of “satisfaction of search.” The malignant mass at 2:30 was initially overlooked on the MRI and discovered only after retrospective review. To the credit of the sonographer, the malignant mass was brought to the attention of the radiologist after the ultrasound examination was completed. Even the best radiologist may overlook a smaller secondary finding when their attention is focused on a prominent abnormality. It is important to always complete a full search pattern after the initial finding is made. The smaller mass was ultimately categorized as BI-RADS 5 based on the MRI and ultrasound findings.

The appearance of MRI enhancement kinetics in the 8 o’clock mass led us down the path of tumor workup, and ultrasound was obtained for further evaluation. How would you have approached this suspicious intracapsular mass? Why did this organizing hematoma display both washout and plateau kinetics on the contrast-enhanced MRI? We theorize capillary invasion through the fibrous capsule may be responsible for the observed MRI enhancement kinetics. Alternatively, the hematoma may have been actively bleeding during the MRI examination. The authors welcome additional input. Contact Dr. Mark Johnson (Mark.Johnson@uvmhealth.org) with your theories.

REFERENCES
The 2016 annual meeting of the American Roentgen Ray Society (ARRS) was held at the Los Angeles Convention Center. In this backdrop of sunny weather and the spectacle of Hollywood, radiologists gathered to attend a myriad of clinical review courses and scientific sessions. We will highlight a small sample of the many excellent scientific papers that may interest SBI members.

With the emphasis on value-based medicine, alternative payment models are expanding among health care organizations. Anand Narayan, MD, Johns Hopkins Hospital, discussed the impact of one such alternative payment model on mammography screening rates: the accountable care organization (ACO). Screening mammography participation is one of the quality metrics specifically measured by ACOs. Although the distribution is very heterogeneous (range, −33.2% to +42.2%), from 2012 to 2014 there was an overall increase of 2.6% in screening mammography utilization among the 208 ACOs that reported longitudinal data. Health care organizations should study the high-performing ACOs to learn best practices in improving screening mammography attendance.

Digital breast tomosynthesis (DBT) is increasingly utilized for breast cancer screening because of its lower recall rates and higher cancer detection rates relative to conventional mammography. Madhavi Raghu, MD, Yale University School of Medicine, presented a retrospective study evaluating if patient age impacts screening DBT performance. Over a 4-year period, DBT was introduced at the authors’ facilities and 46,140 examinations were performed. When sorted by patient age, there were 13,313 exams for patients aged 40 to 49 years, 15,012 for ages 50 to 59 years, 11,877 for ages 60 to 69 years, and 5,938 for ages 70 and over. Overall, the recall rate was 8%. The recall rate decreased significantly with decade from 10.3% in the 40-to-49 group to 5.4% in the 70-and-over group. The cancer detection rate (per 1000) increased by decade from 3.8 in the 40-to-49 group to 9.3 in the 70+ group. Sensitivity, specificity, and accuracy of DBT were similar in all age groups. The metrics improved generally with age but the accuracy of DBT was high across all age groups. Overall, the data for younger women showed good cancer detection rates with few false negatives. The authors conclude that DBT screening should be encouraged for all women.

Many breast radiologists recommend short-interval (6-month) follow-up imaging after a benign concordant needle biopsy. Erin Crane, MD, MedStar Georgetown University Hospital, presented a study questioning this practice. Dr. Crane’s team retrospectively evaluated 620 breast biopsies that
occurred from 2008 to 2012. Of these 620 lesions, only 35 (6%) underwent excision or repeat biopsy. Of these 35 resampled lesions, the team identified 2 invasive cancers, 1 DCIS, 1 atypical lobular hyperplasia with lobular carcinoma in situ, 1 atypical ductal hyperplasia, and 2 phyllodes. Overall, 98.7% of the initially biopsied lesions remained stable on follow-up imaging or remained benign on repeat biopsy/excision. Given this low yield of malignancy, the authors conclude that short-interval follow-up imaging after benign concordant biopsy may be unnecessary.

Multiple medical organizations recommend annual screening MRI as an adjunct to screening mammography for women deemed high risk for breast cancer. How can breast imagers encourage this supplemental screening recommendation? Stamatia Destounis, MD, FACR, FSBI, presented a retrospective study from Elizabeth Wende Breast Care. Through history collected during routine breast imaging in 2014, the team identified 740 women as high risk and referred them to genetic counseling. MRI was recommended in 366 (50%) women, and 79 women had an MRI performed. Of these 79 women, 8 (10%) had suspicious findings and all 8 women subsequently underwent biopsy. Four of the 8 women were diagnosed with invasive node-negative breast cancers, yielding a positive predictive value of 50% for breast MRI. This study demonstrates how a breast imaging center can successfully identify high-risk women, initiate appropriate dialogues, and serve as an entry point for supplemental MRI screening.

Sarah Karkhanechi, MD, University of Toronto, discussed the treatment of locally advanced breast cancer after neoadjuvant chemotherapy (NAC): what is the significance of residual mammographic calcifications in the setting of a response by breast MRI? Through retrospective review from 2010 to 2015, Dr. Karkhanechi’s team identified 30 patients who underwent mammography before and after NAC, MRI before NAC, and MRI during or after NAC. In all 30 patients, there was no significant change in the calcifications after NAC. Six of the 30 patients showed a complete response (CR) by MRI and 23 showed a partial response (PR). Upon the calcifications’ surgical resection, 5/6 patients in the CR group and 14/23 patients in the PR group had residual DCIS by histology. Although the sample size was small, this study suggests that some, if not all, residual calcifications remain worthy of excision and that post-NAC MRI may not accurately predict pathologic response.

In summary, a multitude of interesting studies were presented at ARRS 2016. Breast radiologists can look forward to seeing these findings in print publications and hearing about new research at future radiology meetings.
Many patients we see in breast imaging have an elevated level of anxiety when undergoing their annual exams. We all know that our job requires relieving their fears and answering their questions. Part of making a patient feel comfortable is in reassuring each patient that they are receiving the best care possible. Since 2009, in Connecticut, many of our patients have come to expect that screening breast ultrasound (US) for dense tissue is part of providing that level of excellence. Patients undergoing screening US, particularly hand-held scanning, often ask the technologist or radiologist questions pertaining to the exam. In this article we cover some of the common questions and how we approach discussing them with patients in lay terms.

Some patients immediately think there is a problem when they hear the “beep” of the machine and they know we have stopped scanning momentarily and paused over a specific area. The technologist can be preemptive and start by explaining that during the exam she will be taking pictures even if she is not concerned about anything.

“Do you see anything bad?” This can be a tricky situation for the technologist, especially if she sees something she is concerned about. We certainly don’t want to lie to our patients, but technologists know it’s not their job to give the patient any results. We find it best to reassure the patient that the doctor will go over everything with them before they leave and that no decisions will be made until we have evaluated all the breast tissue. In addition, it is important to tell the patient that the radiologist correlates the mammogram with the ultrasound before making any decisions.

“Is that anything? What is that round black thing?” The patient is often watching the screen during the scan and they commonly ask the technologist such questions. Again, the technologist needs to be comforting and careful not to be backed against a wall by answering questions honestly without giving results. Most times we explain that there are many normal structures within the breast that can be white, black, or grey.

“What is dense tissue?” We explain how dense tissue on mammography is anything other than fat in the breast. Glandular tissue, cysts, benign masses, and cancers all appear white, while fat is dark. Ultrasound is complementary to mammography. On mammography cancers are white within white (dense) tissue, whereas cancers tend to be dark within white (dense) tissue on US. Conversely, masses on
Common Questions From Patients and Answers From Experts Regarding Screening Ultrasound for Dense Breast Tissue, continued from previous page

mammography in areas of fatty tissue, white against dark, are often easier to perceive than on US, where they are dark against dark. We tell patients that density pertains to imaging and does not relate to how the breast feels on palpation. Many patients with lumpy, fatty tissue incorrectly believe they are dense. We frequently hear, “Oh I’ve always been dense” from those patients who are actually not dense at all.

“Does density change with age?” One of the most common things we explain to patients is that many young women are dense and that’s completely normal! We also discuss how generally most women become less dense with age. While the decrease is gradual, there is a more marked reduction in the peri- to postmenopausal period. So we tell women in their 40s who are undergoing mammography and US that they might not always be dense. With this knowledge they will not be surprised if one year their mammogram is no longer dense and US is therefore not indicated or performed. We explain this is why we always start with the mammogram, make sure it is normal, and determine if the tissue is still dense before proceeding with the US. This is also why we perform these exams with a radiologist on site to read immediately (as well as to check any sonographic findings).

“Can’t I just have US every year and skip the mammogram?” “Nice try! But sorry, no.” Patients love screening US—no compression, lying supine, on a comfy stretcher with low-level lighting. It’s much more pleasant than a mammogram. Many would like it if they could just have US every year. And truth is, many women would probably be OK, as most invasive cancers would be successfully detected with US. But the present gold standard is mammography. There are no published data or precedents to know the outcomes of screening with US alone. We explain US is a complement to mammography. They usually give up quickly and laugh it off!

“Do I need US every year? Should I have US or a 3D mammogram every year? Or both? Or US and 2D?” Excellent questions! It gets complicated. So many possibilities! Simple answer: we suggest both 3D mammography and US every year. We don’t have data yet to tell us otherwise. The majority of invasive cancers will be found by both modalities, but mammography is still best for detection of microcalcifications, which US may miss, and US is best for detecting small invasive cancers in areas of dense tissue, which mammography may miss. While the combination of US and 2D mammography may be adequate for most cancer detection, there are other benefits to 3D, such as false-positive recall reduction, so we always recommend 3D. As for frequency of US, as even annual screening mammography in women over 55 years of age is questioned, certainly annual supplemental US may not be necessary every year. Yet older women with dense tissue may need closer surveillance. If mammography remains limited in dense tissue, which is why screening US is being performed, then annual mammography alone will not be adequate. Until literature is published telling us otherwise, we tell patients it is best to do both annually.

In summary, educating patients about the basics of breast density and the procedural aspects of ultrasound scanning helps preempt many questions down the line, reduces anxiety, and achieves a high level of patient satisfaction.
There is no debate that MRI is the most sensitive modality for detection of cancer in the breast imager’s armamentarium. However, its moderate specificity remains an Achilles’ heel to more widespread adoption for populations beyond high-risk patients and women recently diagnosed with breast cancer. As a breast imager, you almost certainly have experienced the wide spectrum of MRI findings. On the one end of the spectrum, there is the straightforward case, where the presence or absence of suspicious findings can be determined with high accuracy by simply looking at the maximum-intensity projection subtracted images. But on the other end of the spectrum lies the agonizing case with multiple equivocal findings. “Do I have to biopsy that lesion?! My gut tells me that mass is a fibroadenoma, but there isn’t high signal on T2-weighted imaging and the margins are not perfectly circumscribed. Is that focus really unique?” All of us who read breast MRI have asked ourselves these questions while trying to make management decisions that are best for our patients. Unfortunately, enhancement kinetics alone have not proven sufficient for improving categorization of equivocal lesions.

Here lies the promise of diffusion-weighted imaging (DWI). DWI measures the ability of water molecules to freely diffuse in tissue, which is affected by biophysical characteristics such as cell density, membrane integrity, and microstructure. More recently, it has been investigated as an oncologic imaging tool, where it is thought to primarily identify areas of higher cellular density (Figure), which are present in most malignancies. Advantages of DWI include a short acquisition time (typically 2 to 3 minutes), wide availability on most commercial scanners, and no need for any exogenous contrast agent.

DWI has been increasingly studied for breast imaging applications. To date, the greatest evidence for use of DWI as an advanced MRI application is as an adjunct sequence to reduce false positives on standard contrast-enhanced breast MRI (Table). Many individual groups have shown that DWI apparent diffusion coefficient (ADC) values are significantly lower in malignant lesions than in benign pathology (1-4). A meta-analysis of 13 DWI studies (964 total lesions) reported a pooled sensitivity of 84% (95% CI, 82%-87%) and specificity of 79% (95% CI, 75%-82%) for discriminating malignant and benign lesions identified on conventional MRI (5). It also has been shown that incorporating DWI into MRI protocols can increase the accuracy of breast MRI assessments (6-9).

DWI also may be useful for evaluating response to neoadjuvant chemotherapy and as a stand-alone test for breast cancer screening. Several preliminary clinical studies have shown that early
increases in tumor ADC following neoadjuvant therapy may indicate treatment efficacy (11, 12) and that baseline ADC values could assist in identifying optimal candidates for preoperative chemotherapy regimens (13). McDonald et al recently evaluated the DWI performance to detect mammographically occult breast cancers in women with dense breasts and found that DWI has the potential to identify as many as 8 cancers per 1000 women screened with reasonable specificity and positive predictive value (91% and 62%, respectively) (15). This screening application is particularly timely given increasing breast density notification and new health concerns related to long-term use of gadolinium contrast agents (16).

Table. Summary of DWI studies demonstrating ADC differences between benign and malignant breast lesions.

<table>
<thead>
<tr>
<th>Study</th>
<th>No. of Malignant Lesions</th>
<th>No. of Benign Lesions</th>
<th>Field Strength</th>
<th>b-Value Schema (s/mm²)</th>
<th>ADC (×10⁻³ mm²/s)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Malignant Lesions</td>
</tr>
<tr>
<td>Guo et al, 2002 (1)</td>
<td>31</td>
<td>24</td>
<td>1.5T</td>
<td>0, 250, 500, 750, 1000</td>
<td>0.97 ± 0.20</td>
</tr>
<tr>
<td>Woodhams et al, 2005 (4)</td>
<td>167</td>
<td>24</td>
<td>1.5T</td>
<td>0, 750</td>
<td>1.22 ± 0.31</td>
</tr>
<tr>
<td>Rubesova et al, 2006 (2)</td>
<td>65</td>
<td>22</td>
<td>1.5T</td>
<td>0, 200, 400, 600, 1000</td>
<td>0.95 ± 0.03</td>
</tr>
<tr>
<td>Bogner et al, 2009 (17)</td>
<td>24</td>
<td>17</td>
<td>3.0T</td>
<td>50, 850</td>
<td>0.99 ± 0.18</td>
</tr>
<tr>
<td>Partridge et al, 2009 (7)</td>
<td>31</td>
<td>52</td>
<td>1.5T</td>
<td>0, 600</td>
<td>1.30 ± 0.27</td>
</tr>
<tr>
<td>El Khouli et al, 2010 (6)</td>
<td>68</td>
<td>31</td>
<td>3.0T</td>
<td>0, 600</td>
<td>1.12 ± 0.37</td>
</tr>
<tr>
<td>Spick et al, 2013 (18)</td>
<td>20</td>
<td>84</td>
<td>1.5T</td>
<td>50, 400, 800</td>
<td>1.06 ± 0.27</td>
</tr>
<tr>
<td>Min et al, 2015 (19)</td>
<td>29</td>
<td>20</td>
<td>1.5T</td>
<td>0, 400, 600, 800</td>
<td>1.11 ± 0.19</td>
</tr>
<tr>
<td>Arponent et al, 2015 (20)</td>
<td>114</td>
<td>23</td>
<td>3.0T</td>
<td>0, 200, 400, 600, 800</td>
<td>0.61 ± 0.20</td>
</tr>
<tr>
<td>Nogueira et al, 2015 (21)</td>
<td>35</td>
<td>23</td>
<td>3.0T</td>
<td>50, 200, 400, 600, 800, 1000</td>
<td>1.08 ± 0.25</td>
</tr>
</tbody>
</table>

Figure: Comparison of water diffusion in tissues with differing cellularity. The net distance (dashed arrows) traveled by protons in the extracellular fluid during a specific time is greater in regions of low cellularity (right), where motion is not impeded by the presence of cellular membranes. In this way, the degree of water diffusion in biological tissue is inversely correlated with the tissue cellularity and the integrity of cell membranes. Reprinted with permission from Elsevier (22).
Given these exciting data, should DWI routinely be incorporated in conventional breast MRI protocols? In our opinion, there are several issues that should be resolved prior to widespread implementation. First, variability in DWI technical approaches across institutions limits the ability to define generalizable diagnostic ADC criteria, and the ideal diffusion sensitization b values for DWI remain unclear. Additionally, with variations in clinical practice across sites on BI-RADS categorization and thresholds for biopsy, it is not clear how implementation of DWI would affect MRI performance across institutions. Finally, spatial resolution and image quality limitations inherent to echo planar techniques remain challenging, limiting the performance and reliability of DWI in assessing smaller lesions. Fortunately, a multisite trial, ACRIN 6702, has been initiated to address these gaps in knowledge. Data from this trial promise to inform optimal b-value acquisition, ADC threshold standardization for excluding malignancy, and algorithmic approach to incorporate DWI into interpretation.

In summary, emerging data support the potential value of DWI to improve breast cancer detection and characterization. The technique is relatively easy to incorporate into clinical breast MRI protocols and can provide complementary information to conventional breast MRI examinations. With technique standardization and clear interpretation guidelines, we envision DWI will become a key MRI tool to improve patient outcomes in the near future.

REFERENCES
Diffusion-Weighted Imaging: Ready for Routine Breast MRI Use?, continued from previous page


Answers to the Newsletter Committee Matching Game

By Peter R. Eby, MD, FSBI

The devoted fans of the newsletter recall that in the first issue of 2016 we provided some fun facts about our committee members and invited everyone to match them together. We presented the answers, along with photographic documentation, live at the SBI/ACR Symposium in Austin in April. Here we provide the answers just in case you want to see them again or could not attend the meeting.

1. Played football at Yale. – Gary Whitman, kicker for the 1972 Bulldogs
2. First person in the United States, along with spouse, to get married after meeting through a computer dating service. – Mike Linver to Mina Jo
3. Became a centerfold for the first time in 2016. – Peter Eby (riding a bicycle in Northwest Travel and Life magazine)
4. Collects cookbooks. – Rita Zuley
5. Can eat an entire watermelon in one sitting and has seen every James Bond movie. – Shadi Shakeri
6. Has a Shih Tzu whose registered name is Oscar the Ewok. – Ann Brown
7. Has run 25 marathons with a personal best time of 3 hours, 27 minutes. – Jiyon Lee
8. Favorite place to be is with family inside their Airstream trailer, no matter where it is parked. – Rob Gutierrez
9. Is a painter and has had an oil painting hung in a museum. – Liane Philpotts
10. Once lifted an elderly patient’s breast during an examination and saw change fall out from under the inframammary fold and roll across the floor. We both burst out laughing as she explained that she always keeps her money in her bra! – Christine Puciato
11. My 3 boys are my life. – Stamatia “Toula” Destounis, mother to Gregory, Paul, and Peter
12. Lives in a log cabin in the mountains that was built over 100 years ago. In less than 1 hour I can drive to a foreign country, the ocean shore, and the desert floor. – Louise Miller
13. Has 2 first-place medals and 1 third-place medal from karate competitions. – Bob Nishikawa
14. Makes the best Side Car cocktail west of the Mississippi and has sampled sushi on 5 continents. – Jessica Leung
15. Built beds for children in Costa Rica and Honduras with a nonprofit called SOFTLY. – Karen Hodgens
The Society of Breast Imaging (SBI) is mainly a volunteer organization. Aside from a handful of incredibly talented professionals, the SBI is composed of volunteer members just like you and me. Needless to say, committees play a big role in the SBI. Currently there are 18 SBI committees (Table 1). Also, there are 8 committees associated with the American College of Radiology (ACR) Commission on Breast Imaging (Table 2). Committee participation is a privilege and a responsibility. Furthermore, working on a committee is a way of paying back for all the benefits derived from society membership.

If you are on a committee or going to join one, it is important to take the work seriously. Joseph Simone, referring to institutional committees, noted that about a third of committee members are hard workers, while the majority do not show up, attend because they have nothing better to do, or cannot or will not spend much time and energy on committee activities (1).

If you are thinking of joining a committee, aim to be in the cohort of hardworking committee members. Try to participate in a committee that interests you. There is a range of SBI committee activities, from media relations to online education to membership to by-laws. If you are interested and engaged, you will be more valuable to the committee and more likely to be asked to renew your term or lead the committee.

Gain familiarity with the topics for discussion. The best committee discussions occur when all the members have studied the materials before the meeting and the discussion is a real dialogue, extending beyond the premeeting materials.

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**Table 1. SBI Committees**

<table>
<thead>
<tr>
<th>Awards</th>
<th>NAPBC Representatives</th>
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<tbody>
<tr>
<td>Breast Imaging Symposium Program Planning</td>
<td>Newsletter</td>
</tr>
<tr>
<td>By-Laws</td>
<td>Nominating</td>
</tr>
<tr>
<td>Communications</td>
<td>Online Education</td>
</tr>
<tr>
<td>Education</td>
<td>SAMS/CME</td>
</tr>
<tr>
<td>Fellows</td>
<td>SBI Exam</td>
</tr>
<tr>
<td>International Education</td>
<td>Scientific Advisory</td>
</tr>
<tr>
<td>Media Relations</td>
<td>Special Projects</td>
</tr>
<tr>
<td>Membership</td>
<td>Weekend Education</td>
</tr>
</tbody>
</table>

**Table 2. Committees of the ACR Commission on Breast Imaging**

<table>
<thead>
<tr>
<th>BI-RADS</th>
<th>Communications</th>
<th>Economics</th>
<th>Education</th>
<th>Government Relations</th>
<th>Practice Parameters</th>
<th>Screening &amp; Emerging Technology</th>
<th>National Mammography Database</th>
</tr>
</thead>
</table>
Show up. Prioritize the conference calls and the face-to-face meetings. To make yourself available for the meetings or the calls, you may need to adjust your schedule or trade a work assignment with a colleague.

Do the work in an efficient and complete manner. The work should be done on time, especially in committees with major deadlines such as the program committee or the newsletter committee. Ideally, your work should be submitted in a complete form; then your material can be edited or modified by a staff member or another committee member. If all of your work has to be redone, then you really have not helped the committee.

Dr. Simone noted that most successful committees have working chairs who prepare materials before meetings, call meetings only when essential, and engage members in a productive way. Simone noted that academic committee meetings should not go beyond an hour, as longer meetings are often due to poor leadership, poor organization, or a lack of purpose (1).

If you are chairing a committee or thinking of becoming a committee chair, be organized and communicate clearly and frequently with the committee members. If there are deadlines, give plenty of advance warning, as we are all busy with our day jobs. Chairs need to be mindful of their agendas and be good listeners. Good ideas come from good discussions between prepared participants. The chair’s job is to lead the discussion and to help develop and distill meaningful ideas and initiatives. The chair should also be mindful of individual committee member participation. Productive, hard-working committee members should be asked to renew their terms and those less interested and/or less productive should be asked to rotate off the committee at the conclusion of their terms.

A list of the current committee members and the organizational chart can be found on the SBI website. The SBI and the ACR maintain lists of those interested in participating on committees. If the commitment, process, and rewards of contributing to the SBI as a member of a committee inspire you, please contact info@sbi-online.org.

REFERENCES
### Upcoming Events & Activities

<table>
<thead>
<tr>
<th>Date</th>
<th>Location</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>September 8-11, 2016</td>
<td>Barcelona, Spain</td>
<td>2nd World Congress on Controversies in Breast Cancer (CoBrCa)</td>
</tr>
<tr>
<td>September 17-18, 2016</td>
<td>San Diego, CA</td>
<td>Case-Based Review &amp; Advanced Breast Imaging: Digital Breast Tomosynthesis - <strong>LAST TIME THIS IS BEING OFFERED!</strong></td>
</tr>
<tr>
<td>September 23-24, 2016</td>
<td>Paris, France</td>
<td>European Society of Breast Imaging (EUSOBI) Annual Scientific Meeting</td>
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<tr>
<td>November 8, 2016</td>
<td></td>
<td>International Day of Radiology</td>
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<tr>
<td>November 27-December 2, 2016</td>
<td>Chicago, IL</td>
<td>RSNA 2016</td>
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For a listing of other society events please check out the SBI Calendar of Events at [www.sbi-online.org](http://www.sbi-online.org)

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**THIS COURSE WILL NOT BE OFFERED AGAIN!**

Register now to get the eight hours of initial training in DBT, including the unique features of the Hologic, GE, and Siemens DBT systems, required by the FDA.